Information Bulletin

Oil Spill From Tanker Trailer

May 8, 2007 **2007-RL-HNF-0019** **Tracking No: 532**

Summary: On systems and equipment which have a potential to release materials to the environment through drains or other uncontrolled release areas, perform inspections for potential design flaws. Potential design flaws should have engineered barriers installed or modifications made to the component to prevent inadvertent, uncontrolled operation of the component.

Discussion of Activities: On Friday, December 15, 2006, a mechanic reported a large oil spill in the 2711E equipment yard. It was determined that tumbleweeds had blown under a tank trailer and the pressure of the wind gusts on the mass of tumbleweeds caused a ball valve on the tank drain to partially open.

Analysis: The tank trailer was being placed in excess by another organization when Fleet Maintenance took ownership of the equipment. During the new equipment inspection by Fleet Maintenance and Environmental Services personnel, a drain valve on the front of the tank was identified and plugged. However, underneath and in the center of the tank-trailer combination was a drain pipe with a ball valve which was never identified during the inspection.

In the evening preceding the discovery of the spill, wind gusts of up to 81 MPH were reported by the Hanford Weather Station. With the ball valve in the "closed" position the valve handle projects downward below the bottom plane of the trailer frame. This configuration allowed the pressure of wind-blown tumbleweeds to partially open the valve resulting in a release of the tanker contents to the environment.

Recommended Actions: For both new and in-use systems/components having the potential for accidental release of materials to the environment; evaluate systems and components for engineered designs which may contribute to the possibility of inadvertently releasing the materials.

Cost Savings/Avoidance: Not Evaluated

Work Function: Maintenance – Equipment

Hazards: Spill, Wind

ISM Core Functions: Analyze Hazards

Keywords: High Wind, Engineering Design

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References: EM-RL--PHMC-FSS-2006-0019